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| Substitute for form 1449B/PTO | | Complete If Known | |
| INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary) | | Application Number | 09/843,676 |
| | | Filing Date | April 26, 2001 |
| | | First Named Inventor | Cech, Thomas R. |
| | | Group Art Unit | 1646 |
| | | Examiner Name | To Be Assigned |
| | | Attorney Docket Number | 015389-002943US |
| Sheet | 1 | of | 1 |

| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|-----------------------|----------------------|-----------------------------------|---|--|---|
| Examiner Initials * | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number | Kind Code ² (if known) | | | |
| dw | A | 6,258,535 | B1 | Villeportsaun et al. | 07-10-2001 | |
| dw | B | 6,261,556 | B1 | Weinrich et al. | 07-17-2001 | |
| dw | C | 6,261,898 | B1 | Cech et al. | 07-17-2001 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS | | | |
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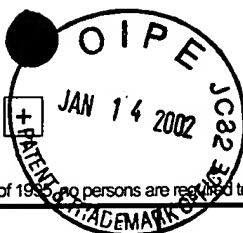
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| Examiner Signature | <i>M. A. Lichea</i> | Date Considered | 11/19/03 |
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Sheet **Page 1** of **10**

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| <i>dm</i> | B | 3,850,752 | | Schuurs <i>et al.</i> | 11-26-74 | |
| <i>dm</i> | C | 3,939,350 | | Kronick <i>et al.</i> | 02-17-76 | |
| <i>dm</i> | D | 3,996,345 | | Ullman <i>et al.</i> | 12-01-76 | |
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| <i>dm</i> | Q | 6,258,535 | B1 | Villeponteau <i>et al.</i> | 07-10-01 | <i>already in IDS filed Jan 4, '02</i> |
| <i>dm</i> | R | 6,201,556 | B1 | Weinrich <i>et al.</i> | 07-17-01 | |
| <i>dm</i> | S | 6,261,836 | B1 | Cech <i>et al.</i> | 07-17-01 | |

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| <i>dm</i> | T | JP | 09154575-A | | | 06-17-97 | | |
| <i>dm</i> | U | PCT | WO 93/23572 | | | 11/93 | | |
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| <i>dm</i> | W | PCT | WO 96/01835 | | | 01-25-96 | | |
| <i>dm</i> | X | PCT | WO 96/12811 | | | 05-02-96 | | |
| <i>dm</i> | Y | PCT | WO 96/19580 | | | 06-27-96 | | |
| <i>dm</i> | Z | PCT | WO 96/40868 | | | 12-19-96 | | |
| <i>dm</i> | AA | PCT | WO 98/01542 | | | 01-15-98 | | |
| <i>dm</i> | AB | PCT | WO 98/01543 | | | 01-15-98 | | |
| <i>dm</i> | AC | PCT | WO 98/07838 | | | 03-05-98 | | |
| <i>dm</i> | AD | PCT | WO 98/08938 | | | 02-26-98 | | |

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Date Considered

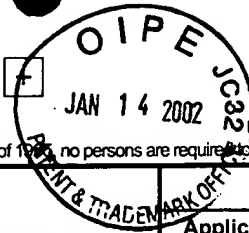
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| Examiner Name | To Be Assigned |
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|--------------------|-----------------------|-------------------------|---------------------|-----------------------------------|---|--|---|----------------|
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| dmf | AE | PCT | WO 98/21343 | | | 05-22-98 | | |
| dmf | AF | PCT | WO 98/23759 | | | 06-98 | | |
| dmf | AG | PCT | WO 98/37181 | | | 08-27-98 | | |
| dmf | AH | PCT | WO 98/45450 | | | 10-15-98 | | |
| dmf | AI | PCT | WO98/59040 | | | 12-30-98 | | |
| dmf | AJ | PCT | WO99/01560 | | | 01-14-99 | | |

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

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|---------------------|-----------------------|---|----------------|
| dmf | AK | 1994 Genome Issue of <i>Science</i> (265:1981f) | |
| dmf | AL | Anderson and Young, "Quantitative Filter Hybridization" in <i>Nucleic Acid Hybridization</i> pp73-111 (1985) | |
| dmf | AM | Ausubel <i>et al.</i> , <i>Current Protocols in Molecular Biology</i> , John Wiley & Sons, New York NY (1989) | |
| dmf | AN | Autexier <i>et al.</i> , "Reconstitution of human telomerase activity and identification of a minimal functional region of the human telomerase RNA," (1996) <i>EMBO J.</i> 15:5928 | |
| dmf | AO | Autexier, C. <i>et al.</i> , "Telomerase and cancer: revisiting the telomere hypothesis," <i>Trends in Biochemical Sciences</i> , 10 (21): 387-391 (1996). | |
| dmf | AP | Auxexier and Greider, "Functional reconstitution of wild-type and mutant <i>Tetrahymena</i> telomerase," (1994) <i>Genes Develop.</i> , 8:563 | |
| dmf | AQ | Avilion, A., "Characterization and expression of human telomerase," <i>Dissertation Abstracts International</i> , 56 (11) 5930-B (1996). | |
| dmf | AR | Barinaga, M., "The Telomerase Picture Fills In," <i>Science</i> 276:528-529 (1997). | |
| dmf | AS | Berger and Kimmel, <i>Guide to Molecular Cloning Techniques</i> , Meth. Enzymol., vol. 152, Academic Press, San Diego CA (1987) | |

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Date Considered

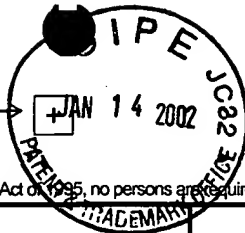
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Sheet **Page 3** of **10**

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|---------------------|-----------------------|---|----------------|
| <i>dw</i> | AT | Biessmann et al., "Addition of Telomere-Associated HeT DNA Sequences "Heals" Broken Chromosome Ends in Drosophila," Cell 61:663 (1990). | |
| <i>dw</i> | AU | Bitter et al., "Expression and secretion vectors for yeast," Meth Enzymol., (1987) 153:516 | |
| <i>dw</i> | AV | Blackburn and Chiou, "Non-nucleosomal packaging of a tandemly repeated DNA sequence at termini of extrachromosomal DNA coding for rRNA in Tetrahymena," (1981) Proc. Natl. Acad. Sci., 78:2263 | |
| <i>dw</i> | AW | Blackburn and Gall, "A tandemly repeated sequence at the termini of the extrachromosomal ribosomal RNA genes in Tetrahymena," (1978) J. Mol. Biol., 120:33 | |
| <i>dw</i> | AX | Blackburn, "Telomerases," (1992) Ann. Rev. Biochem., 61:113 | |
| <i>dw</i> | AY | Bodnar et al., "Extension of Life-Span by Introduction of Telomerase into Normal Human Cells," (1998) Science, 279:349 | |
| <i>dw</i> | AZ | Bradford, "A Rapid and Sensitive method for the Quantitation of Microgram Quantities of Protein Utilizing the Principle of Protein-Dye Binding," (1976) Anal. Biochem., 72:248 | |
| <i>dw</i> | BA | Braunstein et al., "Transcriptional silencing in yeast is associated with reduced nucleosome acetylation," (1993) Genes Develop., 7:592 | |
| <i>dw</i> | BB | Calvio et al., "Identification of hnRNP P2 as TLS/FUS using electrospray mass spectrometry," (1995) RNA, 1:724 | |
| <i>dw</i> | BC | Canuthers et al., "New chemical methods for synthesizing polynucleotides," (1980) Nucleic Acids Res. Symp. Ser., 215-223 | |
| <i>dw</i> | BD | Chan and Tye, "Organization of DNA sequences and replication origins at yeast telomeres," (1983) Cell, 33:563 | |
| <i>dw</i> | BE | Colbere-Garapin et al., "A new dominant hybrid selective marker for higher eukaryotic cells," (1981) J. Mol. Biol., 150:1 | |
| <i>dw</i> | BF | Cole et al., "The EBV-hybridoma technique and its application to human lung cancer," Monoclonal Antibodies and Cancer Therapy, Alan R. Liss Inc., New York NY 77-96 (1985) | |
| <i>dw</i> | BG | Collins et al., "Purification of Tetrahymena telomerase and cloning of genes encoding the two protein components of the enzyme," (1995) Cell, 81:677 | |
| <i>dw</i> | BH | Collins, K., "Structure and Function of Telomerase," Curr. Op. Cell. Biol. 8:374-380 (1996). | |

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M. Alidra

Date Considered

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|---------------------|-----------------------|---|----------------|
| <i>dw</i> | BI | Conrad <i>et al.</i> , "RAP1 protein interacts with yeast telomeres in vivo: Overproduction alters telomere structure and decreases chromosome stability," (1990) <i>Cell</i> , 63:739 | |
| <i>dw</i> | BJ | Coombs, <i>Dictionary of Biotechnology</i> , Stockton Press, New York NY (1994) | |
| <i>dw</i> | BK | Cote <i>et al.</i> , "Generation of human monoclonal antibodies reactive with cellular antigens," (1983) <i>Proc. Natl. Acad. Sci.</i> , 80:2026 | |
| <i>dw</i> | BL | Counter <i>et al.</i> , "The catalytic subunit of yeast telomerase," (1997) <i>Proc. Natl. Acad. Sci.</i> , 94:9202 | |
| <i>dw</i> | BM | Creighton, <i>Proteins, Structures and Molecular Principles</i> , WH Freeman and Co, New York NY [1983]. | |
| <i>dw</i> | BN | Dieffenbach and Dveksler, <i>PCR Primer, a Laboratory Manual</i> , Cold Spring Harbor Press, Plainview NY (1995) | |
| <i>dw</i> | BO | Duplaa <i>et al.</i> , "Quantitative analysis of polymerase chain reaction products using biotinylated dUTP incorporation," (1993) <i>Anal. Biochem.</i> , 212:229 | |
| <i>dw</i> | BP | Fang <i>et al.</i> , "Oxytricha telomere-binding protein: separable DNA-binding and dimerization domains of the α -subunit," <i>Genes Develop.</i> 7:870 (1993) and Gray <i>et al.</i> , (1991) <i>Cell</i> 67:807 | |
| <i>dw</i> | BQ | Feng <i>et al.</i> , "The RNA Component of Human Telomerase," (1995) <i>Science</i> , 269:1236 | |
| <i>dw</i> | BR | GenBank Accession No. AA281296 | |
| <i>dw</i> | BS | Genbank accession no. AA299878 | |
| <i>dw</i> | BT | Genbank accession no. AA311750 | |
| <i>dw</i> | BU | Gilley <i>et al.</i> , "Altering specific telomerase RNA template residues affects active site function," (1995) <i>Genes Develop.</i> , 9:2214 | |
| <i>dw</i> | BV | Gottschling and Cech, "Chromatin Structure of the Molecular Ends of Oxytricha Mononuclear DNA: Phased Nucleosomes and a Telomeric Complex," (1984) <i>Cell</i> , 38:501 | |
| <i>dw</i> | BW | Gottschling and Zakian, "Telomere proteins: specific recognition and protection of the natural termini of Oxytricha macronuclear DNA," (1986) <i>Cell</i> 47:195 | |

Examiner
Signature

M. Salvo

Date
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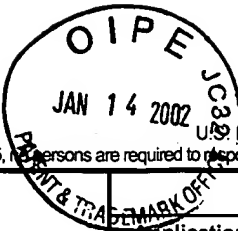
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|---------------------|-----------------------|---|----------------|
| df | BX | Grant <i>et al.</i> , Meth Enzymol., (1987) 153:516-544 | |
| df | BY | Greenwood <i>et al.</i> , "Phylogenetic relationships within the class oligohymenophorea, phylum ciliophora, inferred from the complete small subunit rRNA gene sequences of <i>Colpidium campylum</i> , <i>Glaucoma chattoni</i> , and <i>Opisthionecta henneguyi</i> ," (1991) <i>J. Mol. Evol.</i> , 3:163 | |
| df | BZ | Greider and Blackburn, "A telomeric sequence in the RNA of Tetrahymena telomerase required for telomere repeat synthesis," (1989) <i>Nature</i> , 337:331 | |
| df | CA | Greider and Blackburn, "Identification of a specific telomere terminal transferase activity in Tetrahymena extracts," (1985) <i>Cell</i> , 43:405 | |
| df | CB | Greider, "Telomerase is processive," (1991) <i>Mol. Cell. Biol.</i> , 11:4572 | |
| df | CC | Greider, "Telomere Length Regulation," (1996) <i>Ann. Rev. Biochem.</i> , 65:337 | |
| df | CD | Hampton <i>et al.</i> , <i>Serological Methods a Laboratory Manual</i> , APS Press, St Paul MN (1990) | |
| df | CE | Harrington <i>et al.</i> , "A Mammalian Telomerase-Associated Protein," (1997) <i>Science</i> , 275:973 | |
| df | CF | Harrington <i>et al.</i> , "Human telomerase contains evolutionarily conserved catalytic and structural subunits," (1997) <i>Genes Dev.</i> , 11:3109 | |
| df | CG | Hartman and Mulligan, "Two dominant-acting selectable markers for gene transfer studies in mammalian cells," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:8047 | |
| df | CH | Henderson and Blackburn, "An overhanging 3' terminus is a conserved feature of telomeres," (1989) <i>Mol Cell. Biol.</i> , 9:345 | |
| df | CI | Hillier, <i>et al.</i> , Direct Submission to GenBank, EST Database, Accession No. W70315, Available Oct. 17, 1996. | |
| df | CJ | Hom <i>et al.</i> , "Synthesis of oligonucleotides on cellulose. Part II: design and synthetic strategy to the synthesis of 22 oligodeoxynucleotides coding for gastric inhibitory polypeptide (GIP)," (1980) <i>Nucleic Acids Res. Symp. Ser.</i> , 225-232 | |
| df | CK | Hudson <i>et al.</i> , "An STS-based map of the human genome," (1995) <i>Science</i> , 270:1945 | |
| df | CL | Huse <i>et al.</i> , "Generation of a large combinatorial library of the immunoglobulin repertoire in phage lambda," (1989) <i>Science</i> , 246:1275 | |

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M. C. Licher

Date Considered

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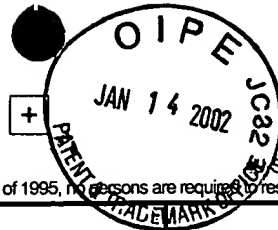
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Sheet **Page 6** of **10**

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|------------------------|-----------------|
| Applicati n Number | 09/843,676 |
| Filing Date | April 26, 2001 |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | 1646 |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002943US |

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|----------------------------|--------------------------|---|----------------|
| dw | CM | Kilian <i>et al.</i> , "Isolation of a candidate human telomerase catalytic subunit gene, which reveals complex splicing patterns in different cell types," (1997) <i>Hum. Mol. Genet.</i> , 6:2011 | |
| dw | CN | Kipling and Cooke, "Hypervariable ultra-long telomeres in mice," (1990) <i>Nature</i> 347:400 | |
| dw | CO | Klobutcher <i>et al.</i> , "All gene-sized DNA molecules in four species of hypotrichs have the same terminal sequence and an unusual 3' terminus," (1981) <i>Proc. Natl. Acad. Sci.</i> , 78:3015 | |
| dw | CP | Koehler and Milstein, "Continuous cultures of fused cells secreting antibody of predefined specificity," (1975) <i>Nature</i> 256:495 | |
| dw | CQ | Kosbor <i>et al.</i> , "The production of monoclonal antibodies from human lymphocytes," (1983) <i>Immunol. Today</i> 4:72 | |
| dw | CR | Lamond and Sproat, (1994) "Isolation and Characterization of Ribonucleoprotein Complexes," pp103-140 | |
| dw | CS | Lamond <i>et al.</i> , "Probing the structure and function of U2 snRNP with antisense oligonucleotides made of 2'-OMe RNA," (1989) <i>Cell</i> , 58:383 | |
| dw | CT | Lendvay <i>et al.</i> , "Senescence mutants of <i>Saccharomyces cerevisiae</i> with a defect in telomere replication identify three additional EST genes," (1996) <i>Genetics</i> , 144 | |
| dw | CU | Lingner <i>et al.</i> , "Purification of telomerase from <i>Euplotes adeiculatus</i> : requirement of a primer 3' overhang," (1996) <i>Proc. Natl. Acad. Sci.</i> , 93:10712 | |
| dw | CV | Lingner <i>et al.</i> , "Reverse transcriptase motifs in the catalytic subunit of telomerase," (1997) <i>Science</i> , 276:561 | |
| dw | CW | Lingner <i>et al.</i> , "Telomerase RNAs of different ciliates have a common secondary structure and a permuted template," (1994) <i>Genes Develop.</i> , 8:1984 | |
| dw | CX | Lingner <i>et al.</i> , "Telomerase and DNA End Replication: No Longer a Lagging Strand Problem?," (1995) <i>Science</i> 269:1533 | |
| dw | CY | Lowy <i>et al.</i> , "Isolation of transforming DNA: Cloning the hamster apt gene," (1980) <i>Cell</i> , 22:817 | |
| dw | CZ | Lundblad, V. et al., "RNA-dependent polymerase motifs in EST1: tentative identification of a protein component of an essential yeast telomerase," <i>Cell</i> , 60 (5):29-30 (1990). | |
| dw | DA | Lustig and Petes, Identification of yeast mutants with altered telomere structure," (1986) <i>Proc. Natl. Acad. Sci.</i> , 83:1398 | |

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Sheet **Page 7** of **10**

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| Application Number | 09/843,676 |
| Filing Date | April 26, 2001 |
| First Named Invent r | Cech, Thomas R. |
| Group Art Unit | 1646 |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002943US |

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|----------------------------|--------------------------|---|----------------|
| <i>def</i> | DB | Lustig, A., "The Identification of Telomerase Subunits: Catalysing Telomere Research," Trends Cell. Biol. 7:299-302 (1997). | |
| <i>def</i> | DC | Maddox <i>et al.</i> , "Elevated serum levels in human pregnancy of a molecule immunochemically similar to eosinophil granule major basic protein," (1983) <i>J. Exp. Med.</i> , 158:1211 | |
| <i>def</i> | DD | Makarov <i>et al.</i> , "Nucleosomal Organization of Telomere-Specific Chromatin in Rat," (1993) <i>Cell</i> , 73:775 | |
| <i>def</i> | DE | McEachern and Blackburn, "runaway telomere elongation caused by telomerase RNA gene mutation," (1995) <i>Nature</i> , 376:403 | |
| <i>def</i> | DF | Melby <i>et al.</i> , "Quantitative measurement of human cytokine gene expression by polymerase chain reaction," (1993) <i>J. Immunol. Meth.</i> , 159:235 | |
| <i>def</i> | DG | Merrifield, "Solid phase peptide synthesis. I. The synthesis of a tetrapeptide," (1963) <i>J. Am. Chem. Soc.</i> , 85:2149 | |
| <i>def</i> | DH | Meyerson <i>et al.</i> , "hEST2, the Putative Human Telomerase Catalytic Subunit Gene, Is Up-Regulated in Tumor Cells and during Immortalization," (1997) <i>Cell</i> , 90:785 | |
| <i>def</i> | DI | Murray, <i>In McGraw Hill Yearbook of Science and Technology</i> , (1992) McGraw Hill, New York NY, pp 191-196 | |
| <i>def</i> | DJ | Nakamura <i>et al.</i> , "Telomerase Catalytic Subunit Homologs from Fission Yeast and Human," (1997) <i>Science</i> , 277:955 | |
| <i>def</i> | DK | Nakayama <i>et al.</i> , "Cloning of a Candidate cDNA Encoding a Proteinaceous Component of Mammalian Telomerase," <i>Mol. Biol. Cell. Abstracts Supp.</i> 7 p. 286a, .sctn. 1664 (1996). | |
| <i>def</i> | DL | Nakayama <i>et al.</i> , "TLP1: A Gene Encoding a Protein Component of Mammalian Telomerase Is a Novel Member of WD Repeats Family," (1997) <i>Cell</i> , 88:875 | |
| <i>def</i> | DM | Nielsen <i>et al.</i> , (1993) "Peptide nucleic acids (PNAs): Potential antisense and anti-gene agents," <i>Anticancer Drug Des.</i> , 8:53 | |
| <i>def</i> | DN | Oka <i>et al.</i> , "Inverted terminal repeat sequence in the macronuclear DNA of <i>Stylonychia pustulata</i> ," (1980) <i>Gene</i> , 10:301 | |
| <i>def</i> | DO | Olovnikov, "A theory of marginotomy: The incomplete copying of template margin in enzymic synthesis of polynucleotides and biological significance of the phenomenon," (1973) <i>J. Theor. Biol.</i> , 41:181 | |
| <i>def</i> | DP | Orlandi <i>et al.</i> , "Cloning immunoglobulin variable domains for expression by the polymerase chain reaction," (1989) <i>Proc. Natl. Acad. Sci.</i> , 86:3833 | |

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M. Calvete

Date
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| Application Number | 09/843,676 |
| Filing Date | April 26, 2001 |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | 1646 |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002943US |

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|----------------------------|--------------------------|---|----------------|
| def | DQ | Prescott, "The DNA of ciliated protozoa," (1994) <i>Microbiol. Rev.</i> , 58:233 | |
| def | DR | Price, (1993) <i>Blood Rev.</i> , 7:127 | |
| def | DS | Rhodes <i>et al.</i> , "Transformation of maize by electroporation of embryos," (1995) <i>Meth. Mol. Biol.</i> , 55:121 | |
| def | DT | Roberge <i>et al.</i> , "A strategy for a convergent synthesis of N-linked glycopeptides on a solid support," (1995) <i>Science</i> , 269:202 | |
| def | DU | Romero and Blackburn, "A conserved secondary structure for telomerase RNA, " (1991) <i>Cell</i> , 67:343 | |
| def | DV | Sambrook <i>et al.</i> , <i>Molecular Cloning, A Laboratory Manual</i> , Cold Spring Harbor Press, Plainview NY (1989) | |
| def | DW | Sandell <i>et al.</i> , "Transcription of yeast telomere alleviates telomere position effect without affecting chromosome stability," (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12061 | |
| def | DX | Sanger <i>et al.</i> , "DNA sequencing with chain-terminating inhibitors," <i>Proc. Natl. Acad. Sci.</i> , 74:5463 [1977]. | |
| def | DY | Scharf <i>et al.</i> , "Heat stress promoters and transcription factors," (1994) <i>Result Probl. Cell Differ.</i> 20:125 | |
| def | DZ | Shampay and Blackburn, "Generation of telomere-length heterogeneity in <i>Saccharomyces cerevisiae</i> ," (1988) <i>Proc. Natl. Acad. Sci.</i> , 85:534 | |
| def | EA | Sheen and Levis, "Transposition of the LINE-like retrotransposon TART to <i>Drosophila</i> chromosome termini," (1994) <i>Proc. Natl. Acad. Sci.</i> , 91:12510 | |
| def | EB | Singer and Gottschling, "TLC1: Template RNA Component of <i>Saccharomyces cerevisiae</i> Telomerase," (1994) <i>Science</i> 266:404 | |
| def | EC | Singer, M., "Unusual Reverse Transcriptases," <i>J. Biol. Chem.</i> 270(42):24623-24626 (1995). | |
| def | ED | Startling <i>et al.</i> , "Extensive telomere repeat arrays in mouse are hypervariable," (1990) <i>Nucleic Acids Res.</i> , 18:6881 | |
| def | EE | Swanton <i>et al.</i> , "Arrangement of Coding and Non-coding Sequences in the DNA Molecules Coding for rRNAs in <i>Oxytricha</i> sp.," (1980) <i>Chromosoma</i> 77:203 | |

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| Application Number | 09/843,676 |
| Filing Date | April 26, 2001 |
| First Named Inventor | Cech, Thomas R. |
| Group Art Unit | 1646 |
| Examiner Name | To Be Assigned |
| Attorney Docket Number | 015389-002943US |

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|---------------------|-----------------------|---|----------------|
| JS | EF | Tommerup <i>et al.</i> , "Unusual chromatin in human telomeres," (1994) <i>Mol. Cell. Biol.</i> , 14:5777 | |
| JS | EG | Trask, "Fluorescence in situ hybridization: application in cytogenetics and gene mapping," (1991) <i>Trends Genet.</i> , 7:149 | |
| JS | EH | Verma <i>et al.</i> , "Human Chromosomes: A Manual of Basic Techniques," Pergamon Press, New York NY (1988) | |
| JS | EI | Watson, "Origin of concatemeric T7 DNA," (1972) <i>Nature New Biol.</i> , 239:197 | |
| JS | EJ | Weinrich <i>et al.</i> , "Reconstitution of human telomerase with the template RNA component hTR and the catalytic protein subunit hTRT," (1997) <i>Nat. Genet.</i> , 17(4):498 | |
| JS | EK | Wellinger <i>et al.</i> , "Origin activation and formation of single-strand TG ₁₋₃ tails occur sequentially in late S phase on a Yeast linear plasmid," (1993) <i>Mol. Cell. Biol.</i> , 13:4057 | |
| JS | EL | Wellinger <i>et al.</i> , "Saccharomyces Telomeres Acquire Single-Strand TG ₁₋₃ Tails Late in S Phase," (1993) <i>Cell</i> 72:51 | |
| JS | EM | Whitehead Institute/MIT Center for Genome Research, Genetic Map of the Mouse, Database Release 10, April 28, 1995 | |
| JS | EN | Wigler <i>et al.</i> , "Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells," (1977) <i>Cell</i> , 11:223 | |
| JS | EO | Wigler <i>et al.</i> , "Transformation of mammalian cells with an amplifiable dominant-acting gene," (1980) <i>Proc. Natl. Acad. Sci.</i> , 77:3567 | |
| JS | EP | Winter and Milstein, "Man-made antibodies," (1991) <i>Nature</i> , 349:293 | |
| JS | EQ | Wright <i>et al.</i> , "Saccharomyces telomeres assume a non-nucleosomal chromatin structure," (1992) <i>Genes Develop.</i> , 6:197 | |
| JS | ER | Yu <i>et al.</i> , "In vivo alteration of telomere sequences and senescence caused by mutated Tetrahymena telomerase RNAs," (1990) <i>Nature</i> , 344:126 | |
| JS | ES | Zahler and Prescott, "Telomere terminal transferase activity in the hypotrichous ciliate <i>Oxytricha nova</i> and a model for replication of the ends of linear DNA molecules," (1988) <i>Nucleic Acids Res.</i> , 16:6953 | |
| JS | ET | Zakian, Telomeres: Beginning to Understand the End," (1995) <i>Science</i> 270:1601 | |

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| First Named Inventor | Cech, Thomas R. |
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| Examiner Name | To Be Assigned |
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|------------------------|--------------------------|---|----------------|
| dmf | EU | Zaug <i>et al.</i> , "Catalysis of RNA Cleavage by a Ribozyme Derived from the Group I Intron of Anabaena Pre-tRNA ^{Leu} ," | |
| dmf | EV | Zaug, A. J. <i>et al.</i> , "Method for determining RNA 3' ends and application to human telomerase RNA," Nucleic Acids Research, 24 (3): 532-533 (1996). | |

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